

I CLAIM:

1. A method for making a composite tool having a steel shank and a working head that is connected to the steel shank and that is made from metal carbide, the method 5 comprising the steps of:

(a) forming a recess in the working head such that the recess is indented inwardly from a first joint face of the working head in a transverse direction relative to the first joint face, the recess 10 having a cylindrical section that extends in the transverse direction and that is distal from the first joint face, and a skirt section that flares outwardly from the cylindrical section to the first joint face and that has an outer edge adjacent to the first joint 15 face;

(b) forming a cylindrical protrusion on a second joint face of the steel shank such that the cylindrical protrusion has a diameter greater than that of the cylindrical section of the recess and 20 smaller than that of the outer edge of the skirt section of the recess;

(c) inserting the cylindrical protrusion of the steel shank into the recess in the working head and pressing the steel shank and the working head against 25 each other in such a manner that the cylindrical protrusion is deformed to completely fill the recess, that the first and second joint faces abut against

each other to define a contact region therebetween, and that the working head and the steel shank cooperatively define a shoulder around the contact region, the shoulder defining a corner adjacent to 5 the contact region; and

(d) forming a solder joint on the corner by welding.

2. The method of Claim 1, wherein the solder joint is formed by applying a solder material on the corner 10 of the shoulder and subsequently melting the solder material under vacuum conditions.

3. A method for making a composite tool having a steel shank and a working head that is connected to the steel shank and that is made from metal carbide, the method 15 comprising the steps of:

(a) forming a generally conical recess in the steel shank such that the recess is indented inwardly from a first joint face of the steel shank in a transverse direction relative to the first joint face, 20 the recess having a depth in the transverse direction;

(b) forming a generally conical protrusion on a second joint face of the working head such that the conical protrusion has dimensions respectively proportional to those of the recess, and a height, 25 which is measured from a vertex of the conical protrusion to the second joint face, greater than the depth of the recess;

(c) inserting the conical protrusion of the working head into the recess in the steel shank and pressing the steel shank and the working head against each other in such a manner that the conical recess 5 is enlarged by the conical protrusion, that the conical protrusion completely fills the recess, that the first and second joint faces abut against each other to define a contact region therebetween, and that the working head and the steel shank 10 cooperatively define a shoulder around the contact region, the shoulder defining a corner adjacent to the contact region; and

(d) forming a solder joint on the corner by welding.